

A  
Collection of Engravings,

TENDING TO ILLUSTRATE THE  
GENERATION AND PARTURITION  
OF

A N I M A L S,

AND OF THE

H U M A N S P E C I E S.

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By THOMAS DENMAN, M. D.

L I C E N T I A T E I N M I D W I F E R Y,

O F T H E C O L L E G E O F P H Y S I C I A N S.

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*Naturæ Numen ubique præsens cernitur.*

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L O N D O N:

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M D C C L X X X V I I .



82-16048

T O

SIR GEORGE BAKER, BAR.<sup>T</sup>

PHYSICIAN IN ORDINARY TO THEIR MAJESTIES,

A N D

PRESIDENT OF THE COLLEGE OF PHYSICIANS,

T H E S E P L A T E S

A R E D E D I C A T E D,

W I T H A L L D E F E R E N C E A N D R E S P E C T,

B Y H I S O B L I G E D,

A N D M O S T H U M B L E S E R V A N T,

Old Burlington Street, }

13th Sept. 1787.

*T H O M A S D E N M A N.*



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# P R E F A C E.

*HAVING* been for more than twenty years almost wholly engaged in giving Lectures, and in the practice of Midwifery, it was highly necessary for me to know all that had been done for its improvement; and in the course of such investigation, it was scarcely possible for me not to discern some errors and deficiencies in the art, or not to entertain a wish to correct and supply them. Among other things worthy of notice, it appeared remarkable, that many useful discoveries, which were well understood in one country, should have been altogether unknown in another, though the means of communication were easy and frequent; and that many things which were well understood at one period of time, should in a course of years, without the intervention of any general calamity, have been entirely forgotten even in that very country, where the discoveries were originally made.

To the production of these events different causes have contributed. Among these may be reckoned the custom, formerly so prevalent with Physicians, of writing books in the learned languages; by which means the knowledge they intended to convey, though spread thereby into various countries, never became so generally diffused in any one country, as to be brought into popular use and practice. The knowledge also acquired by different men is unfortunately dispersed in so great a number of books, some of them bearing perhaps in their titles little analogy to the subjects on which they eventually treat, that the life of a man, aiming at excellence, might be passed in searching for what had been done by those who preceded him in the same pursuit: or, after working through a great variety of things with the most commendable industry, he would have the mortification of finding that much of his labour might have been spared; many of those observations, which he supposed to be new, having been made before, and judiciously explained. Nor are the innumerable variations in the force and meaning of words in every living language, at different periods of time; the different senses given to language by punctuation; and the corruptions of copies of works written or printed; together with the uncertain meaning and disputable explanations of words in the dead languages, evils to be overlooked in this enumeration. All the means hitherto practised for the tradition of medical knowledge have been evidently defective.

Whether all that has been done by human industry, upon this or any other subject, will ever be collected into one work; whether men will in future be induced to join their labours together in such a manner, that their inquiries and experience may converge to one point; or, whether they will ever be able to form a language, intelligible to all, and not liable to change, equal at the same time to a full and precise representation of their ideas, is very much to be doubted, however desirable such things may appear in speculation.

With such a language we are nevertheless supplied to a certain degree by accurate drawings; and from the number and excellence of engravers in this country, there is no difficulty in procuring all the assistance they can afford. Of the advantage to be derived from engraving, which is to drawing what printing is to writing, we have a curious, though negative, example in the architecture of the ancients; the knowledge of which would probably have been lost, or very imperfectly preserved, had not the ruins of their edifices remained to exemplify and explain their writings; and hence we may judge of the great havock which must have been made in all temporary and transitory objects. Yet these arts have their imperfections and bounds. The form, position, and relation of such parts as are the subjects of anatomical enquiry may certainly be more easily represented in drawings, than by words; but the uses, properties, and some other circumstances, can only be explained by words. With the united assistance  
therefore



therefore of printing and engraving we are certainly capable of expressing ourselves better on a variety of occasions, than by either of them separately; and from the first invention of the latter, medical writers have availed themselves of its assistance: many works have accordingly been composed and published, some of them useful, and others of great value, as well from the excellence of the artists as of the design. But none of them come intirely up to my intention. I do not mean to consider human parturition as a part of natural history, or to give a view of morbid parturition as a branch of professional knowledge; or to consider this collection as an auxiliary, or supplement, to any other design; but to begin a work into which should be received all that has hitherto been, or may in future be, observed of the parturition of animals in general, as well as of the human species; so as to reduce into form, and preserve one comprehensive system of the whole subject, as far as it can be done by engravings, subservient to the purposes of practice, and becoming at the same time a source of elegant pleasure.

Some years ago, without any view to this publication, I began to have drawings taken of such subjects as occurred to me relative to utero-gestation or parturition in the human species, or in animals, natural, preternatural, or morbid; whenever they appeared likely to give a more comprehensive view of the science of Midwifery, or to improve the art; to elucidate such things as were obscurely known; or, to exhibit others which could be more clearly understood by this mode of representation. My collection is not large, but they are all taken from nature; and there is so much truth and elegance in the drawings executed by Mr. Rymdyk, that they may be considered as patterns to all future artists. Some of these being engraved, I am unwilling that they should be lost, and therefore publish this first number as a specimen of the work; or as Lord Bacon has expressed himself, *tanquam tela pertexenda*; for my intention would be poorly answered, if it was to rest upon what it will ever be in my power to do. It is therefore my earnest request, not only to those Gentlemen with whom I have lived in habits of friendship; or to those in whose education I have had a part; but to all the learned and scientific in the practice of Midwifery, who may be in the possession of drawings or engravings connected with the scope of this work, and too few in number for a separate publication, that they would be pleased to communicate them to me. If they comply with my request, and I should be permitted to live to the conclusion of this century, I do not despair of seeing a large and useful collection of engravings, by which the knowledge of many discoveries, facts, and doctrines may be ascertained, promulgated and preserved; and which may serve as a lasting monument of the pursuits and industry of the present time; in the glory of which every one will partake according to the share of help, which they yield towards its construction.

Should I be prevented from continuing this work, it will be conducted by Mr. JOHN CLARK, TEACHER of MIDWIFERY, in Queen-Street, Golden-Square; a Gentleman, from whose abilities and industry the greatest proficiency in his profession is to be expected.

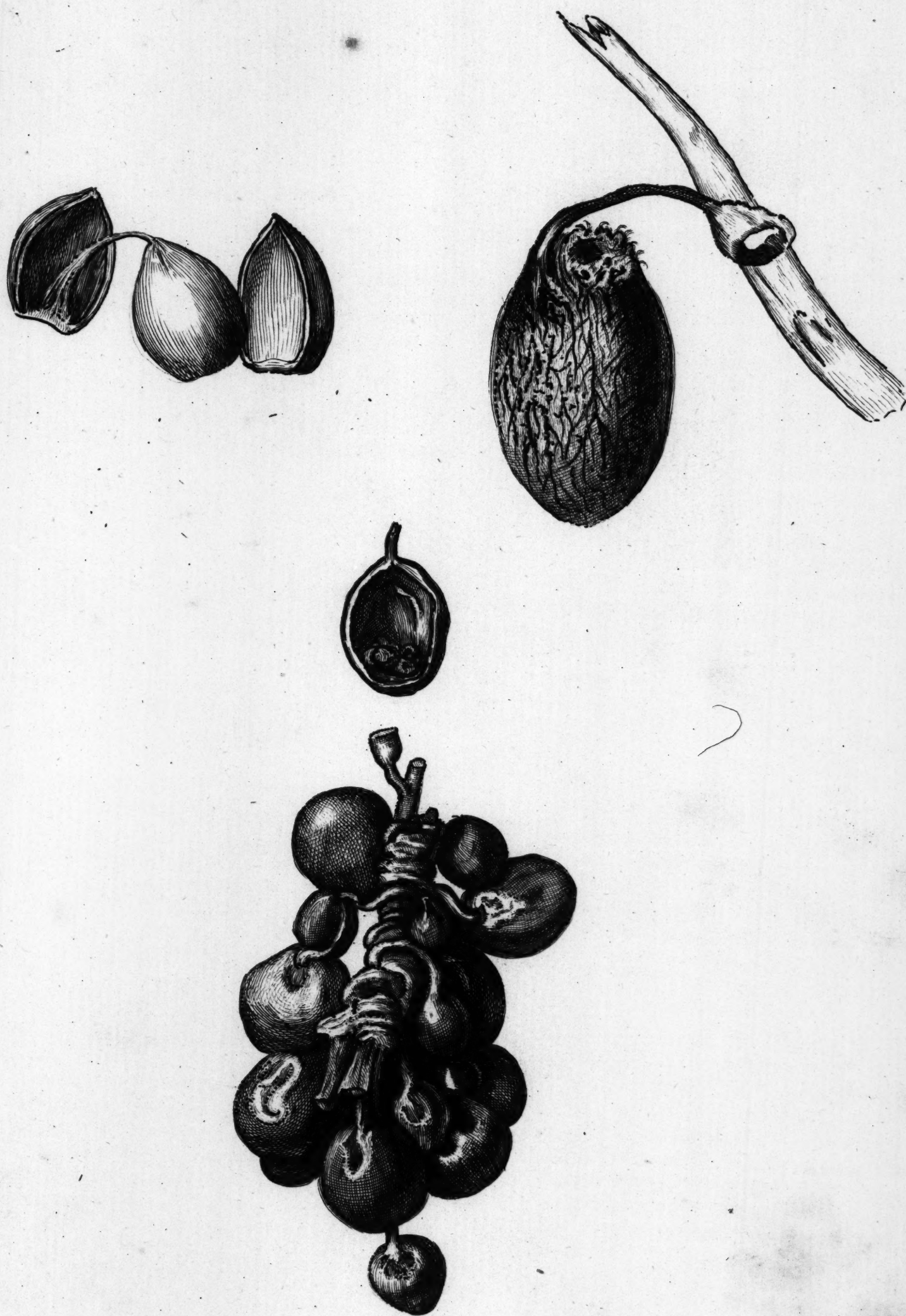
The very moderate price at which these plates are intended to be sold, will free me from the suspicion of aiming at any profit which may arise from their publication. There are no references, as the beauty of the plates would be thereby injured; and I apprehend, the different parts intended to be shewn are so clearly expressed, as not to escape the eye of those who are accustomed to such objects: They are not numbered, for the general convenience of the work, and for that in particular of such Gentlemen as may condescend to join their labours to those of

Their most humble servant,

London, Old Burlington-Street, }  
September 13th, 1787. }

THOMAS DENMAN.





*Reynolds del.*

Publsh'd as the Act directs, by D<sup>r</sup> Tho<sup>s</sup> Denman, 23. Feb<sup>r</sup> 1787.

*Miller sculp.*



The *Funis* of a Nut.—The *Chrysalis* of the *Phalæna Atlas*.—The Eggs of the Cuttle Fish.

I HAVE joined these three subjects in one plate on account of their resemblance, though they are taken from such different parts of the creation.

In the representation of the Nut attention is chiefly paid to the *Funis*, which is mentioned by *Linnaeus*, and probably by many other writers. As the apex of the kernel is by this *Funis* bound to the broad end of the shell, the shell to the husk, or foliaceous cup, and this again by a twig to the tree, the whole manner in which nourishment is conveyed to the kernel appears. The coats of the kernel likewise resemble the membranes of the *ovum* in viviparous animals; and the flocculent lining of the shell, the membrane formed, after conception, over the internal surface of the *uterus*. Mr. *Miller*, who made the drawing of this Nut, thinks that many seeds have a similar *apparatus*.

In some shells, the Apricot for instance, there is no lining to the shell, or connection between it and the kernel. In such, the shells being covered with fruit, or a husk, are more porous, and the nourishment, penetrating the cavity in the form of a dew, is absorbed by the kernel.—See *Amœnitat. Academ.* vol. iv.

THE *Chrysalis* of this Moth was plucked from the tree upon which it hung, on an island in the Straits of *Malacca*, by my worthy friend *Thomas Liell*, Esq. and on the following day a large and beautiful Moth escaped.

I do not know that there is any thing peculiar in this *Chrysalis*; but the largeness of the size serves to shew distinctly the beautiful arrangement of that substance, which is spread like net-work over the surface of the *chrysalis*, and which, being concentrated at the upper end into one cord, is fixed to the twig of a tree as a place of security.—See *Merian's Surinam Insects*, pl. lii.—*Amœnitat. Academ.* vol. iv. *Bombyx*.

THE Eggs of the Cuttle Fish, which in their form and size resemble a small grape, are fastened in clusters by an animal substance to sea-weed, in a place suited to the state of the Fish when it escapes from the egg.—*Gesner*, in his account of the *sepia*, has quoted the reason assigned by *Aristotle* for these eggs being collected into clusters, "That they may be conveniently imbued with that viscous fluid ejected by the male, by which they are to be nourished and increased." *Gesner* also speaks of their exclusion from the egg in these terms—"Mox ova edita crassitudinem acinorum uvæ minorum intra diem decimum quintum capiunt, quibus abruptis sepiolæ excluduntur; quæ, (si quis prius, prole jam perfectâ, absciderint ovi membranam) stercusculum mittunt, suumque præ metu colorem immutant ex candicante in rubiusculum."

See *Amœnitat. Academ.* vol. i.—See also *Aldrovandus*, *Charlton*, and *Gesner*.

La Corde d'une Noix.—La Chrysalide du *Phalæna Atlas*.—Les Oeufs du Poisson nommé Seiche.

J'AI placé ces trois sujets ensemble pour faire une planche à raison de leur ressemblance, quoiqu'ils sont pris de choses si différentes.

Dans la représentation de la Noix une attention particulière a été donnée à la Corde, dont *Linnaeus* a parlé, et probablement plusieurs autres auteurs. Comme l'amande est attachée à la coquille par la Corde, la coquille à la coque, et la coque à l'arbre par une petite branche, on voit la manière dont se nourrit l'amande. La Corde de l'amande ressemble aux membranes de l'œuf dans les animaux vivipares, et la doublure latérale de la coquille se rapporte à la membrane formée sur la surface interne de la matrice, après conception. M. *Miller* croit que beaucoup de grains a des apparences semblables.

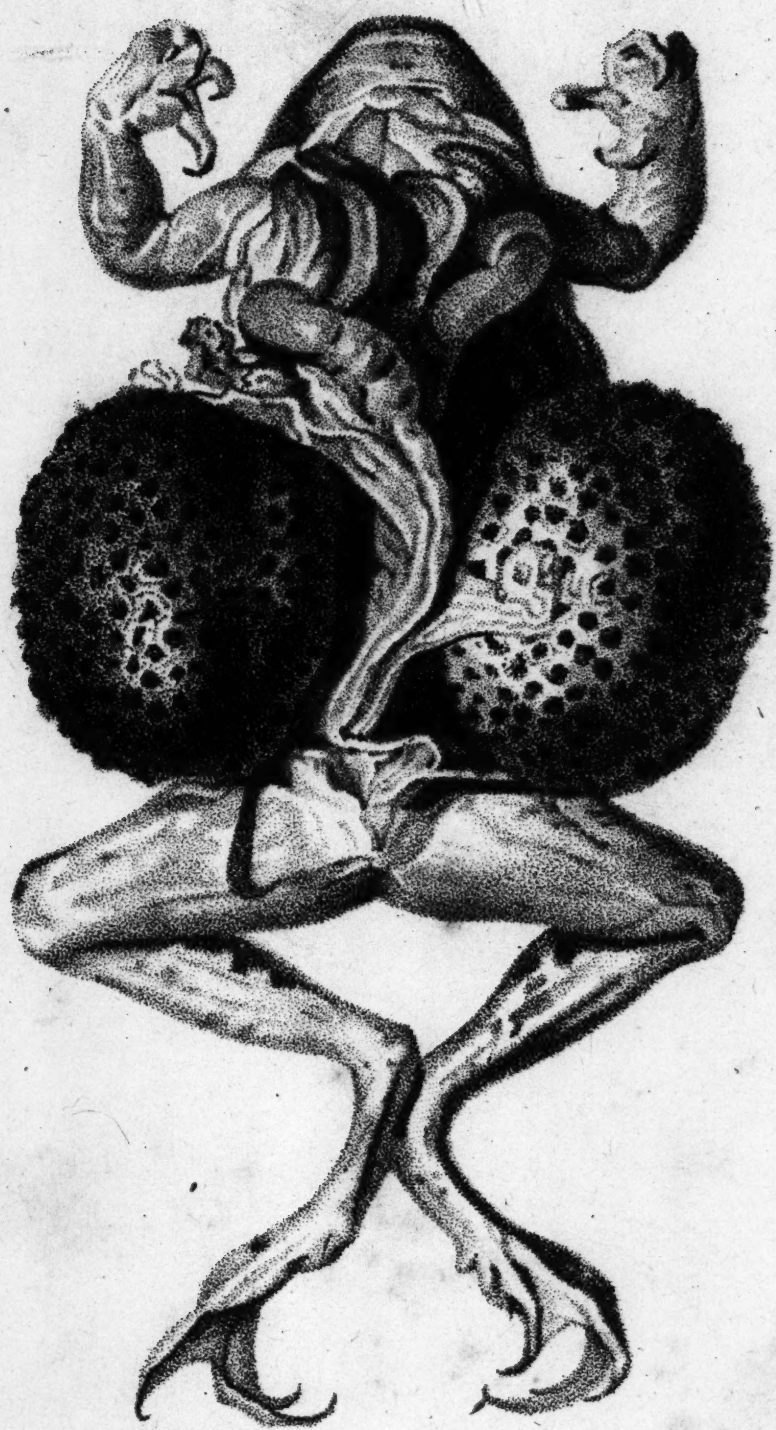
Dans quelques coquilles, l'abricot par exemple, il n'y a pas de connexion entre l'amande et la coquille. C'est pourquoi les coquilles sont plus ou moins poreuses, et la nourriture, qui, comme une rosée, pénètre la cavité, est absorbée par l'amande.

LA Chrysalide de cette Teigne étoit prise d'un arbre sur laquelle elle pendoit, dans une île dans le Détroit de *Malacca*, par mon ami *Thomas Liell*, Esq. et le lendemain est échappé une superbe teigne.

Je ne connois rien de remarquable à cette Chrysalide; mais de sa grandeur on voit l'arrangement de cette substance, qui couvre, comme un réseau, la surface de la Chrysalide, et se resserre pour former une seule corde, qui s'attache à une petite branche de l'arbre, comme un endroit de sécurité.

LES Oeufs du Poisson la Seiche, qui par leurs grandeurs et formes ressemblent à un petit raisin, sont attachés en peletons par une substance animale aux herbes de mers, dans un endroit approprié à l'état du poisson, lorsqu'il s'échappe de l'œuf.—*Gesner*, dans son histoire du *Seiche*, a cité la raison que *Aristotle* donne pourquoi les oeufs sont joints en peletons, "Qu'ils peuvent être suffisamment imbues de ce fluid visceux éjaculé par le mâle, lequel fluid doit les servir de nourriture et d'accroissement." *Gesner* parle aussi de l'exclusion de l'œuf dans ces termes—"Mox ova edita crassitudinem acinorum uvæ minorum intra diem decimum quintum capiunt, quibus abruptis sepiolæ excluduntur; quæ (si quis prius, prole jam perfectâ, absciderint ovi membranam) stercusculum mittunt, suumque præ metu colorem immutant ex candicante in rubiusculum."





*J. V. Rymsdyk delin.*

London Publish'd Decr 22 1783. by D<sup>r</sup> Thomas Denman.

*C. Knight sculp.*



A Display of the Internal Parts of a Frog, with the *Ovaria*.

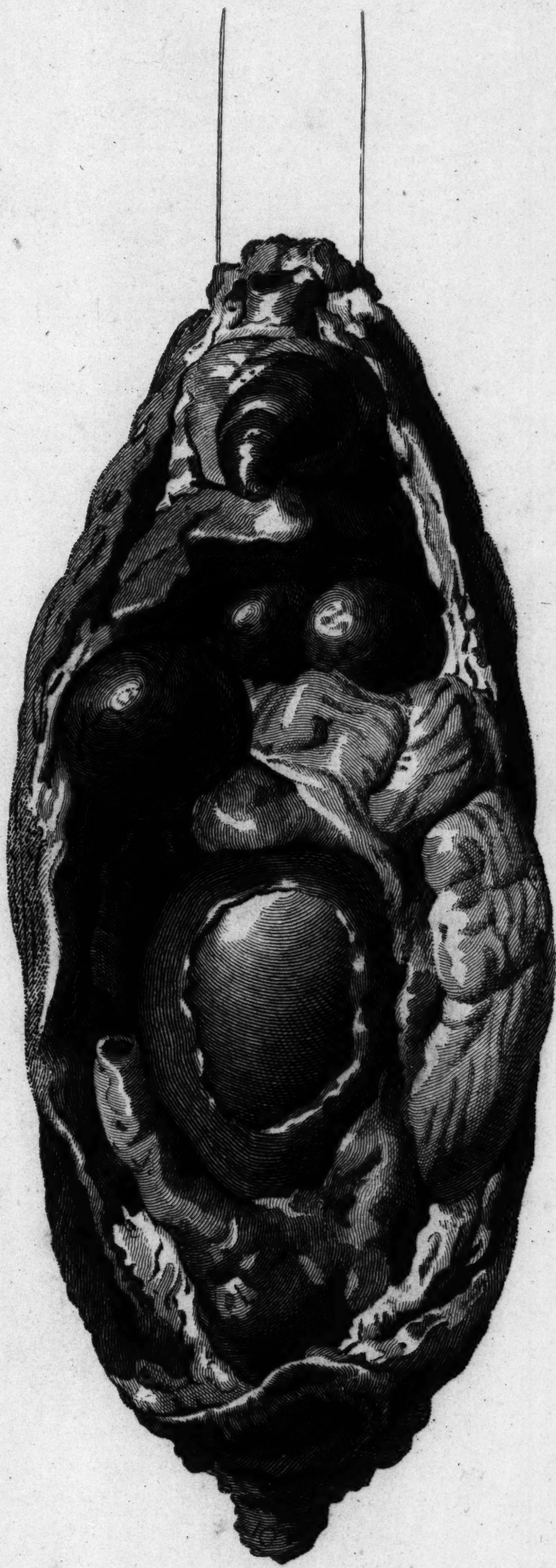
**B**EFORE the contents of the *ovaria* are deposited, those in a Frog are so large, and so much expanded, that they hide the *uterus* and origin of the *ovaria*, and almost all the *viscera* of the *abdomen*. For this reason *Roefel* thought it necessary to give two drawings for the explanation of this subject; the first, to represent the *ovaria*, and the second, the parts of generation. But, by turning aside the left *ovarium*, every thing is brought to view without any derangement, and as clear a representation is made of the whole, as the nature of the subject allows, or seems to require.

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Une Exposition des Parties Internes d'une Grenouille, avec ses *Ovaires*.

**A**VANT que le contenu des *ovaires* est déposé, ceux dans une Grenouille sont si grands, et si développés, qu'ils cachent la *matrice* et l'origine même des *ovaires*, et presque tous les *viscères* de l'*abdomen*. C'est pourquoi *Roefel* avoit crû qu'il étoit nécessaire de donner deux planches pour expliquer ce sujet; la première, pour représenter les *ovaires*, et la seconde, les parties de la génération. Mais en tournant un peu du côté l'*ovaire* gauche, on en voit tout sans aucun dérangement, et on en a une vue aussi parfaite que le sujet permet, ou demande.





*J. V. Rymsdyk delin.*

Publith'd as the Act directs by D<sup>r</sup> Tho. Denman, 23. Feb. 1787.

*W. Skelton sculps.*



A Section of a Hen, shewing the *Ovarium*, with an Egg perfected in the *Infundibulum*.

IN the *ovarium* of a Hen are contained the *primordia* of an infinite number of Eggs, differing in size, and rising towards perfection in regular succession: While these abide in the *ovarium*, they consist of the Yolk only, impregnated with the fecundating principle conveyed in the act of copulation; but in their passage through the *Infundibulum*, which has a membranous expanded orifice fitted for their convenient reception, they collect the White, and other subordinate parts. In the lower part of the *Infundibulum*, which by some writers has been distinguished as the *uterus*, they become invested with the membranes and shell; soon after which they are expelled.

*Harvey* has given as good a description of these parts, as words can convey; but a representation to the eye was wanting, & this plate, by the exertion of the artists, is rendered worthy of supplying that deficiency. *De Graaff* has indeed given a delineation of the *Ovarium* and *Infundibulum*; but they are taken out of the body, by which means their original position, relation, and genuine appearances are lost.

There is yet wanting a delineation of the daily changes made in the Egg during incubation. These might be reduced into one view, and then the subject would be nearly compleat.

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Une Section d'une Poule, demontrante l'*Ovaire*, et un Oeuf dans l'Etat de Perfection dans l'*Infundibulum*.

L'OVAIRE d'une Poule contient le principe primitif d'une quantité d'Oeufs, qui different en grandeur, et qui parviennent a la maturité chacun a son tour: pendant qu'ils sont dans l'ovaire ils sont formés du jaune seulement, impregné de la semence communiquée dans l'act de copulation; mais dans leur passage au travers l'*Infundibulum*, qui a une orifice membraneuse dilatée propre pour leur reception, ils ramassent le blanc et les substances subordonnées. Dans la partie inferieure de l'*Infundibulum*, laquelle quelques auteurs ont nommés la matrice, ils deviennent enveloppés de membranes, et de la coquille; peu après ils sont expulsés.

*Harvey* a donné une aussi bonne description de ces parties qu'il est possible; mais il s'en manquoit de dessein, et cette planche, par le soin des artistes, est rendue digne de suppléer a cette description. *De Graaff* a donné une ébauche de l'*Ovaire* et de l'*Infundibulum*; mais comme ils sont séparés du reste du corps, la position generale et relative, les connexions, et les apparences sont tout-a-fait perdus.

Il s'en manque encore d'une ébauche des changemens quotidiens faits dans l'Oeuf durant incubation; Il faut que tous ces soyent représentés dans la même planche, et donc ce sujet en seroit presque parfait.





*J. V. Rymsdyk delin.*

*W. Skelton sculp.*

Publish'd as the Act directs, by D<sup>r</sup> Tho<sup>s</sup> Denman, 23. Feb. 1787.



A Part of the *Uterus* of a Cow, with one of the *Cotyledons*, and a Portion of the  
Membranes.

THE changes which take place in the *uterus* of a Doe *after conception*, as the softness and tumefaction of its substance, the formation of its membranous lining, and the origin and progress of the caruncles or glandular eminences in its *cornua*, to which the *cotyledons* are afterwards fixed, are all particularly described by *Harvey*.

The drawing now before us is from these parts in a Cow, an animal of the same class, which therefore are probably in all respects, except the size both of the caruncles and *cotyledons*, similar to those of the Doe. This *cotyledon* is in part separated and turned from the caruncle, by which means the texture of both is more clearly seen, and additional beauty given to the plate.

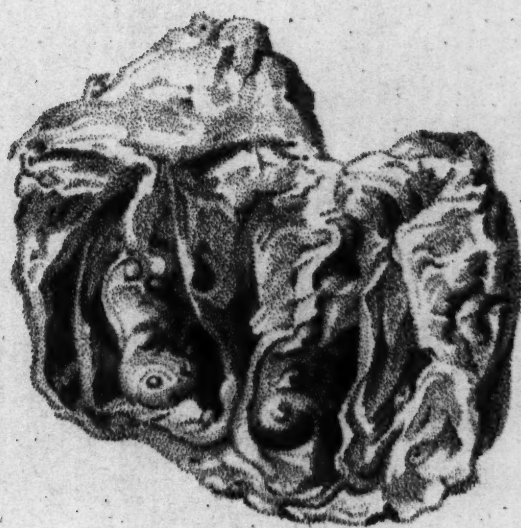
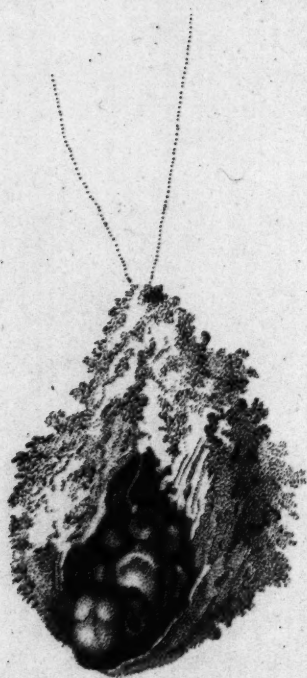
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Une Partie de la *Matrice* d'une Vache, avec une des *Cotyledons*, et une Portion  
des Membranes.

LES changemens qui ont lieu dans la *matrice* d'une Daine *après la conception*, par exemple, la mollesse et la tumefaction de sa substance, la formation des membranes qui la tapissent, et l'origine et le progrès des caruncules ou éminences glanduleuses, auxquelles les *cotyledons* sont après attachés, sont particulièrement décrites par *Harvey*.

Cette planche nous représente les mêmes parties dans une Vache, un animal de la même espèce que le Daine, ainsi ses parties ne diffèrent probablement que dans la grandeur des caruncules et des *cotyledons*. Ce *cotyledon* est en partie séparé et tourné de la caruncule, en sorte que la structure de tous les deux est plus distinctement vûe, et beaucoup de beauté est ajouté au planche.





*J. V. Rymsdyk delin.*

Published as the Act directs, by D<sup>r</sup> Tho. Denman, 23. Feb. 1787.

*C. Knight sculp.*



### Three Human Abortions, one of which contains Twins.

IF delineations were to be made of every variety observed in abortions, there would be no bounds to the work. Yet in every collection there must be some examples, that we may be able to distinguish the different parts of which an *ovum* is composed, the proportions which they bear to each other at different periods of pregnancy, and sometimes the part of the process of utero-gestation which failed. It must however be allowed, that the generality of these things are preserved for their beauty, or as matters of curiosity, rather than of use. I suspect nevertheless that there are some appearances, besides the *vesicula umbilicalis*, not yet perfectly understood, and therefore recommend the whole subject as worthy of being reviewed by some anatomist, who has time and opportunities of examining it with accuracy. The figure which contains Twins is in itself of rather more value, as it is the first of the kind which has been delineated.

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### Trois Avortements à différents Períodes, l'une des quelles contient des Jumeaux.

SI on faisoit des desseins de toutes les variétés qu'on remarque dans les avortements, il n'y auroit pas de fin. Cependant il faut dans chaque collection donner quelques exemples, pour nous mettre en état de distinguer les différentes parties dont la conception est composée, les rapports différents qu'elles ont entr'elles dans chaque période, et quelquefois cette partie de utero-gestation où le progrès a été arrêté. Il faut avouer pourtant qu'en general ils sont conservés pour leur beauté ou leur curiosité plus tôt que pour leur utilité. Neantmoins je soupçonne qu'il y a quelques apparences, autre la *vesicule ombelicale*, qu'on n'entend pas encore parfaitement; et par consequence je recommande ce sujet comme digne de l'attention de ces anatomistes qui pourront avoir occasion de l'examiner avec plus d'exactitude. La figure qui contient les Jumeaux est très curieuse; et comme c'est la première de ce genre, elle n'en ait que plus estimable.





*R. Livesey pinx.*

London, Publish'd Dec<sup>r</sup> 22. 1783. by D<sup>r</sup> Thomas Denman.

*C. Knight sculp.*



### A Morbid Human Ovum.

THE circumstances chiefly deserving attention in this Plate are, the small size of the *Embryo* compared with that of the *placenta*, the dropical state of the *funis umbilicalis*, and the change which has taken place on the internal surface of the *placenta*, which is rising into eminences, and has assumed such an appearance as if it would have been formed into tubercles or hydatids, in the manner suggested by *Ruyfch*, and of which he has given several drawings.

It appears that this *embryo* must have been blighted in the very early part of pregnancy, though it has no marks of decay. But the *placenta* adhered, increased in its size, and remained in the *uterus* to the end of the ninth month, and was then expelled without much pain or difficulty. When brought to me, it was supposed to be a mole, and seemed like a mass of flesh without any particular organization; but when carefully examined, was found to be an *Ovum*, with the appearances so well represented in this plate.

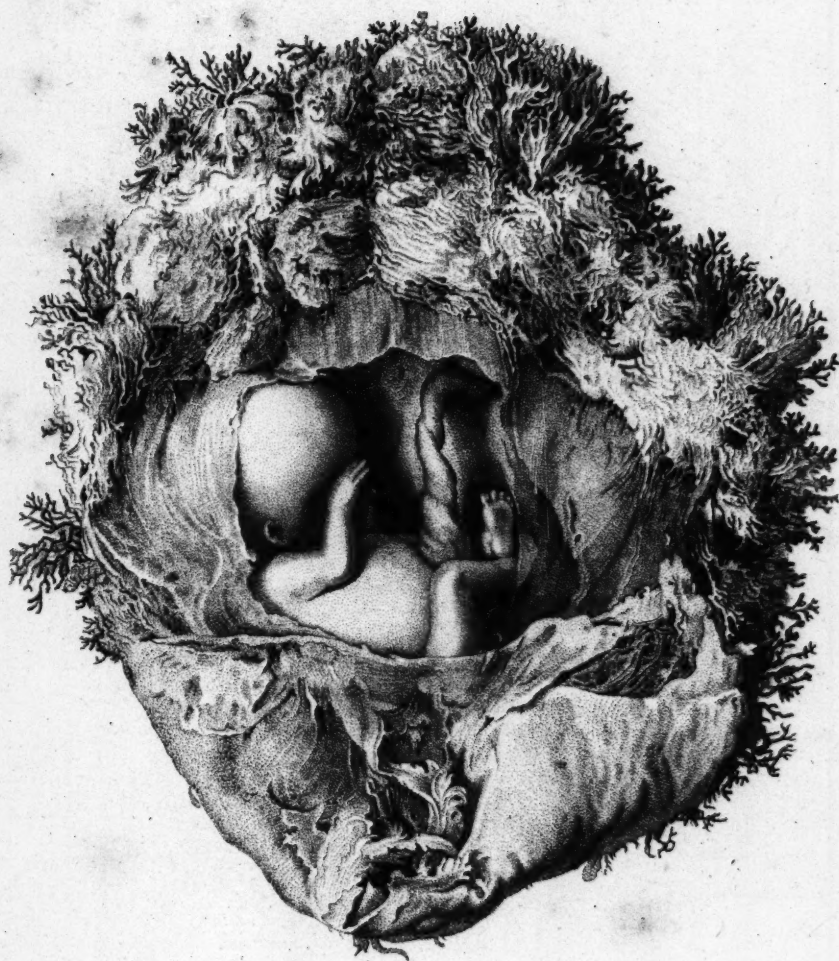
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### Une Conception humaine dans l'état de Maladie.

LES circonstances qui meritent le plus d'attention dans cette planche, sont la petitesse de l'*Embrion* en comparaison de la grandeur du *placenta*, et l'état hydropyque du cordon ombilicale, et le changemen que a soubie la surface interne du *placenta*, qui s'élève en tubercules ou hydatides, de la même manière que *Ruyfch* l'a démontré dans plusieurs planches, qu'il a donnés sur ce sujet.

Il y a apparence que l'*embrion* a été broui dans les premières tems de la grossesse, quoiqu'il n'y avoit point de marques de decadence; mais la *placenta* étoit adherent, devenoit grosse, et restoit dans la *matrice* jusqu'à la fin du neuvieme mois, et étoit alors expulsé sans beaucoup de douleur, ou de difficulté. Quand on me l'apporta, on le croyoit un faux-germe; et il avoit l'apparence de chair sans aucune organisation particulière: mais quand on l'eût examiné avec soin, on le trouva être une Conception, avec tous les ressemblances si bien représentés dans cette planche.





— — del.

London Published Dec<sup>r</sup> 22. 1783 by D<sup>r</sup> Thomas Dorman.

C. Knight sculp.



### An Human *Ovum*, about the third Month of Pregnancy.

THIS *Ovum* is rather larger than might be expected from the date, and more perfect than those usually are which are expelled in consequence of the common causes of abortion. No other art was used in preparing it than by soaking it in water, to cleanse it from the adhering blood. The artist who made the drawing was a *German*, whose name was *Nall*: He was so struck with the beauty of the preparation, that he never was satisfied with his work, and took uncommon pains to finish it.

Besides the two proper membranes of the *Ovum*, there is preserved a large portion of that membranous production of the *uterus*, the formation of which *Harvey* has so well described; which many writers have denominated the false or spongy *Chorion*; *Ruyfch*, from its appearance, the *Membrana Villosa*, *illam placentæ partem obducens, quæ uterum respicit*; *Bianchi*, the *Placento-vascularis cortex ad totum ovi ambitum*; *Hunter*, suspecting it to be a *lamella* cast off from the *Uterus* after every conception, *decidua*; and from its duplicature, or *transit* over the *ovum*, which he discovered, *decidua reflexa*; and which, from its office, I have ventured to call the Connecting Membrane of the *Ovum*. But this will be more fully and perfectly represented in a subsequent plate.

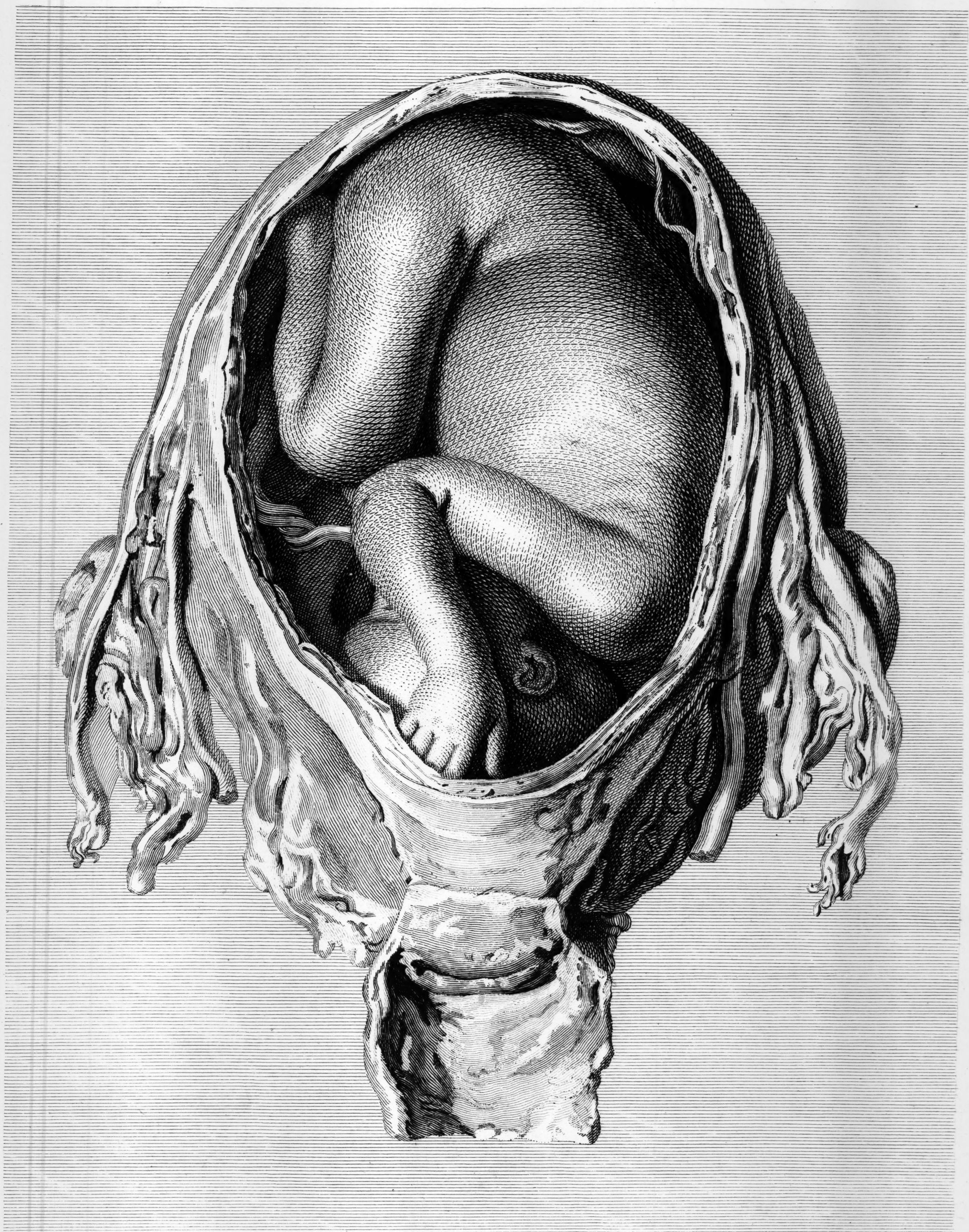
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### Une Conception, aux Environs de trois Mois.

CETTE Conception est un peu plus grand qu'on devoit s'attendre d'après sa date, et plus parfaite que celles qui sont ordinairement expulsées par les causes communes de l'avortement. Pour préparer cette pièce on n'a fait que la tremper dans de l'eau pour ôter le sang adhérent. L'artiste qui l'a dessinée étoit un Allemand nommé *Nall*, il étoit si frappé de la beauté de la préparation qu'il n'étoit jamais content de son ouvrage et a pris des peines infinies pour la finir.

Outre les deux membranes propres de la conception, on a conservé une grande portion de la production membraneuse de la matrice, la formation de laquelle *Harvey* a si bien décrite; laquelle membrane plusieurs auteurs ont appelés le *Chorion faux* ou spongieux; *Ruyfch*, d'après ses apparences, la *tunica villosa*; *Bianchi*, *placento-vascularis cortex ad totum ovi ambitum*; *Hunter*, supposant qu'il étoit une feuille de la matrice d'après toute conception, *decidua*; et de sa duplicature, ou transit sur la conception, *decidua reflexa*: et qui, d'après son usage, j'ai appelé la Membrane Unifante de la Conception. Mais ceci sera plus entièrement et parfaitement représenté dans une planche suivante,





*John van Rymsdyk ad vivam delineavit 1784*

*Will<sup>m</sup> Shelton sculp. 1786.*

Publith'd November 1<sup>st</sup> 1786, by D<sup>r</sup> Thomas Denman.



The *Uterus*, containing the Child of a Woman, who died in the Act of Parturition.

THE preparation, from which this drawing was taken, has not been disturbed in any other way than was absolutely necessary to free it from the parts to which it was connected; but, as it has been preserved in spirits, the outline of the limbs and body of the child is rendered somewhat hard. It may however be considered as a just and perfect view of the situation of the *Fœtus in Utero* at the time of birth; and though, perhaps, no two children were ever found exactly in the same position, there is one which may be called the most natural, because its general habitudes are most frequent. This now exhibited corresponds so punctually with that described with such unrivalled elegance by *Harvey*, that his description might be almost suspected to have been taken from the same preparation:—*Infans in utero ut plurimum reperitur, adductis ad abdomen genibus, flexis retrorsum cruribus, pedibus decussatis, manibusque ad caput sublatis, quarum alteram circa tempora vel auriculas, alteram ad genam detinet; ubi maculæ albæ, tanquam confricationis vestigia, in cute cernuntur: spina in orbem flectitur, caput ad genua incurvato collo propendit. Tali membrorum situ, qualem in somno per quietem quærimus.* See *HARV. Exercitat. de Partu.*

Than this part of the description nothing can be more just; and we may add, that as it is our position before we are born, it is that also to which we incline in the decrepitude of old age.

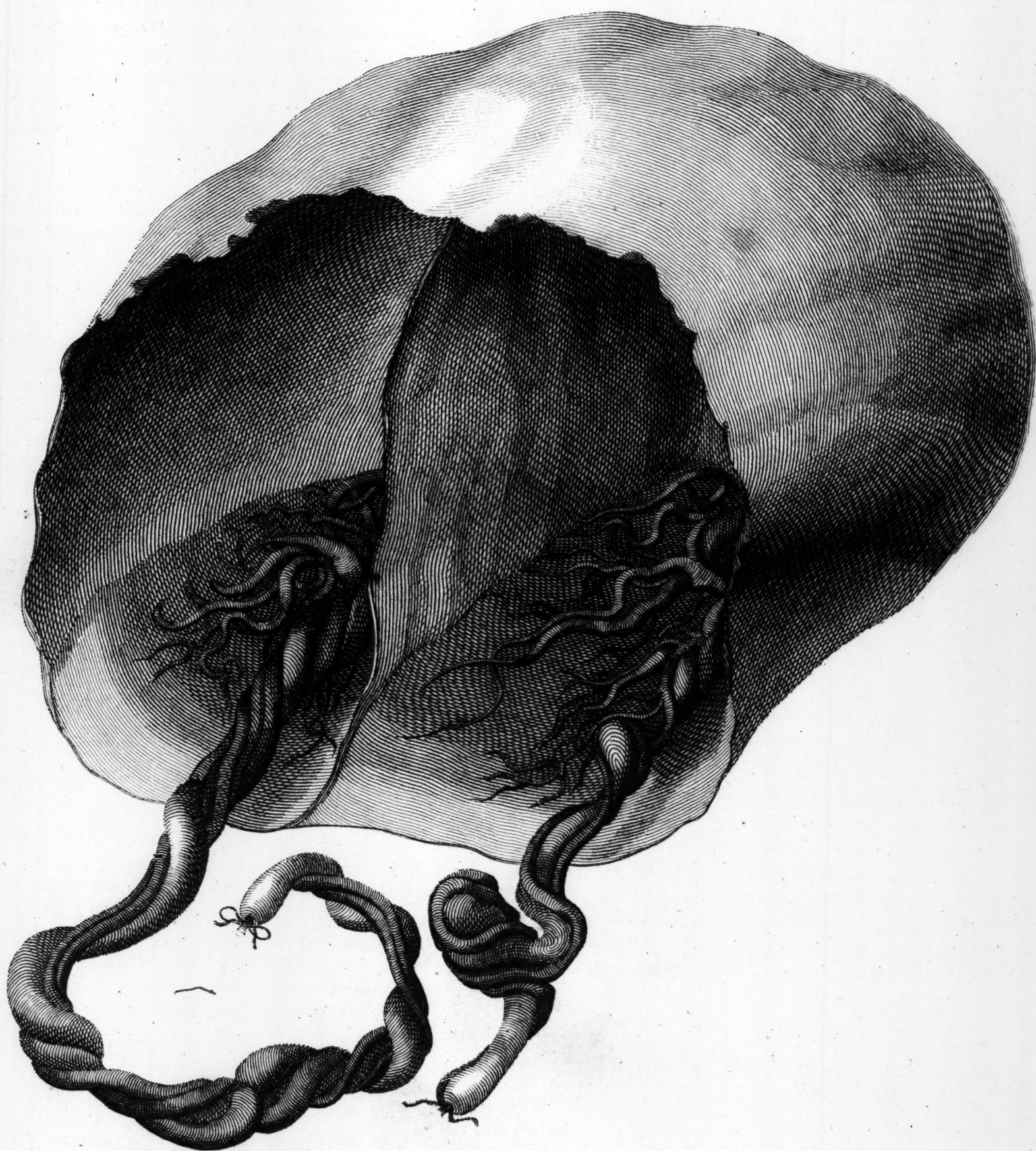
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La Matrice d'une Femme contenant l'Enfant, laqu' elle Femme est morte dans l'Accouchement.

LA preparation d'ou on a pris ce dessein, n'a été nul autrement derangée qu'il étoit nécessaire pour la degager des parties environnantes; mais comme elle a été conservée dans les esprits du vin, ligne extérieure du corps et des membres de l'enfant est devenue, en consequence, un peu dure. Cependant on peut la considerer come une parfaite idée de la situation de l'Enfant dans la Matrice dans le tems de la naissance; et quoique deux enfans ont peut-être jamais été trouvés exactement dans la même position, il y en a une que peut-être appelée naturelle, parcequ'elle est plus commune. Cette planche correspond si exactement avec celle si bien décrite par *Harvey*, qu'on pourroit croire que celle-ci a été prise de la même preparation:—*Infans in utero ut plurimum reperitur, adductis ad abdomen genibus, flexis retrorsum cruribus, pedibus decussatis, manibusque ad caput sublatis, quarum alteram circa tempora vel auriculas, alteram ad genam detinet; ubi maculæ albæ, tanquam confricationis vestigia, in cute cernuntur: spina in orbem flectitur, caput ad genua incurvato collo propendit. Tali membrorum situ, qualem in somno per quietem quærimus.* Voyez *HARV. Exercitat. de Partu.*

Rien n'est plus juste que la description de *Harvey*, mais en même tems nous pouvons ajouter, que comme c'est notre position avant d'être né, c'est aussi celle que nous prenons dans les infirmités de l'age.





*J. P. Nodder delin.*

*W. Skelton sculp.*

Publith'd as the Act directs, by D<sup>r</sup> Thomas Denman, 23. Feb. 1787.



### A Twin *Placenta* with the Membranes.

AFTER a slight injection of this *Placenta*, the Membranes were distended with horse-hair; and when dried, the subject was placed before the artist. The drawing is therefore somewhat formal, not admitting of so much elegance, either in the design or execution, as is observable in some of the foregoing prints. But the partition of the Membranes into chambers for the accommodation of the two children is preserved distinctly, and that is the great object of the plate.

I do not know, or recollect, that any engravings have hitherto been made or published of *Ova*, in which there were two, three, or more children, either in early pregnancy, or, at the full period of utero-gestation. I therefore recommend this whole subject, in which there may be some peculiarities and certainly are many varieties, to those Gentlemen, who may meet with opportunities of investigating it, as entirely new, and as affording them room for acquiring reputation by attending to a very useful and curious part of natural history.

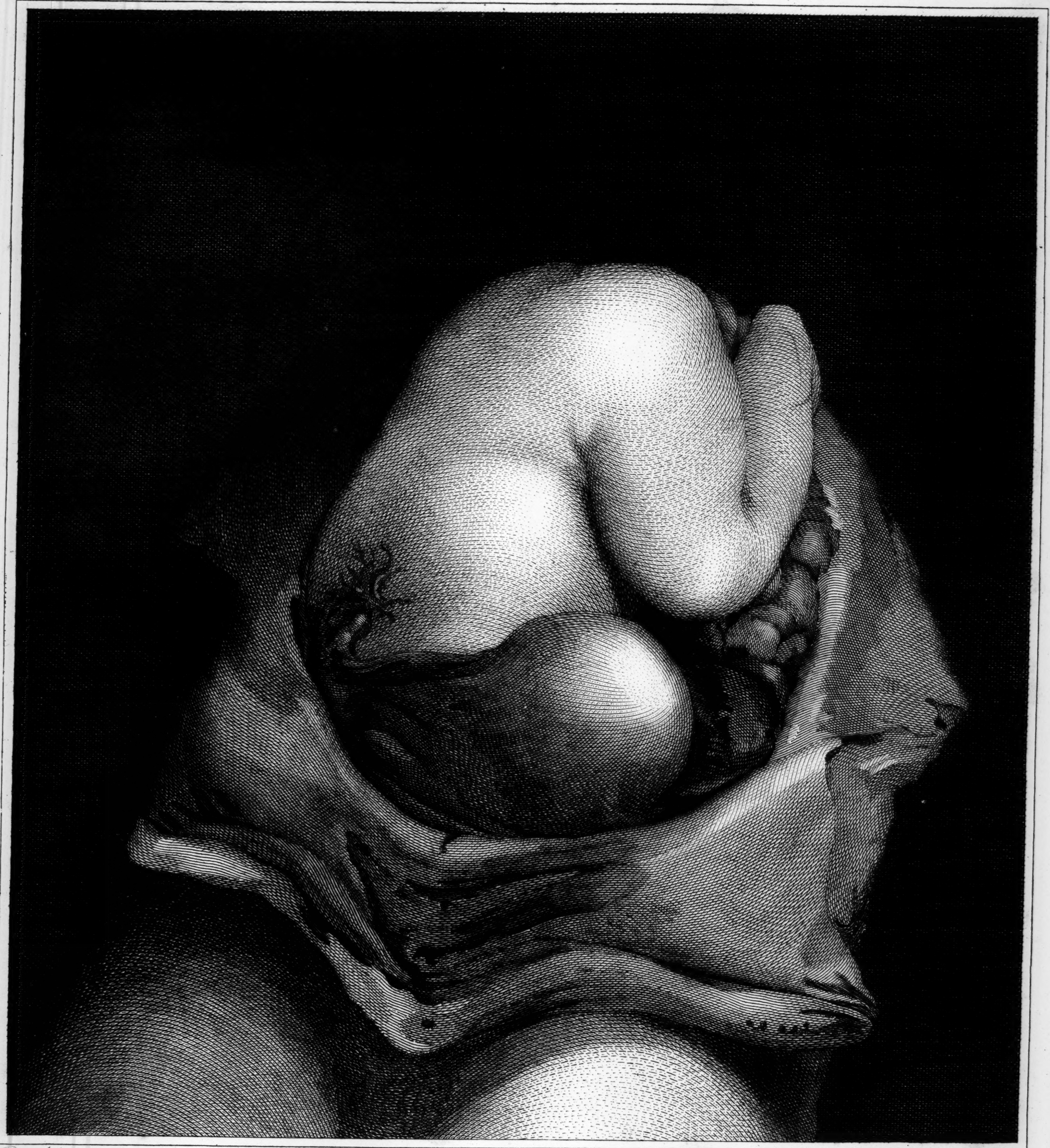
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### Un *Placenta* de Jumeaux avec les Membranes.

APRES une legere injection de ce *Placenta*, les Membranes furent étendues par des crins de cheval; et quand elles furent sèches, l'artiste en a pris le dessein; qui est un peu stenté, et n'exécuté pas avec la même élégance que les planches ci-devant. Mais la division des membranes en cavités ou chambres pour l'accomodement des deux enfans a été conserveé tres distinctement, et c'est là le principal objet de cette planche.

Je ne sai, ni me rappelle, si aucunes graveures ont été données jusqu'à ce jour au publique de conceptions, ou deux, trois, ou plus d'enfans étoient continus, soit au commencement, soit a la fin de la grossesse. C'est pourquoi je recommande ce sujet, ou il y a quelques particularités et certainement bien des variétés, a ces Messieurs qui pouront avoir occasion de l'examiner. C'est une partie d'anatomie et de physiologie tres curieuse, et qui n'est par encore bien connue.





*R. Atkinson ad vivum pinxit.*

*W. Skelton sculpsit.*

Publish'd as the Act directs, by D<sup>r</sup> Thomas Denman, 23. Feb<sup>r</sup> 1788.



## Rupture of the *Uterus*.

THE person, from whom this drawing was taken, died suddenly in the act of parturition. I saw her a very short time before her death; and, no attempts having been made to extract the child, all the parts are exhibited precisely in the undisturbed state, in which they appeared on making a crucial incision through the integuments of the *abdomen*.

The case was an example of the spontaneous rupture of the *uterus*, at the posterior part, opposite the projection of the *sacrum*. The body of the child escaped into the cavity of the *abdomen*, the head remaining locked in the *pelvis*. The *fundus* and anterior part of the *uterus*, not being diseased or injured, had contracted properly after the exclusion of the child. The casual expansion of the right *Fallopian* tube with its *fimbriæ* upon the body of the child explains the relative situation of the parts, and gives additional beauty to the plate.

Many cases of the rupture of the *uterus* are recorded by different writers, especially by *Bonetus* in his *Sepulchretum*, and by *La Motte*; but I believe no just engraving of the subject hath been published. There is yet wanting a representation of a rupture at the anterior part of the *uterus*; which sometimes happens, though far less frequently than at the posterior part. For the completion of the subject it would also be necessary to delineate some of the varieties, together with the state of the *uterus* at the ruptured part. But of the rupture of the *uterus* the instances are so rare, that what remains to be done must be finished by the labours of different anatomists and practitioners.

For an account of the symptoms which attend the rupture of the *uterus*, and the conduct, which it may be necessary to pursue, see an Essay published by my worthy friend Dr. *Andrew Douglas*.

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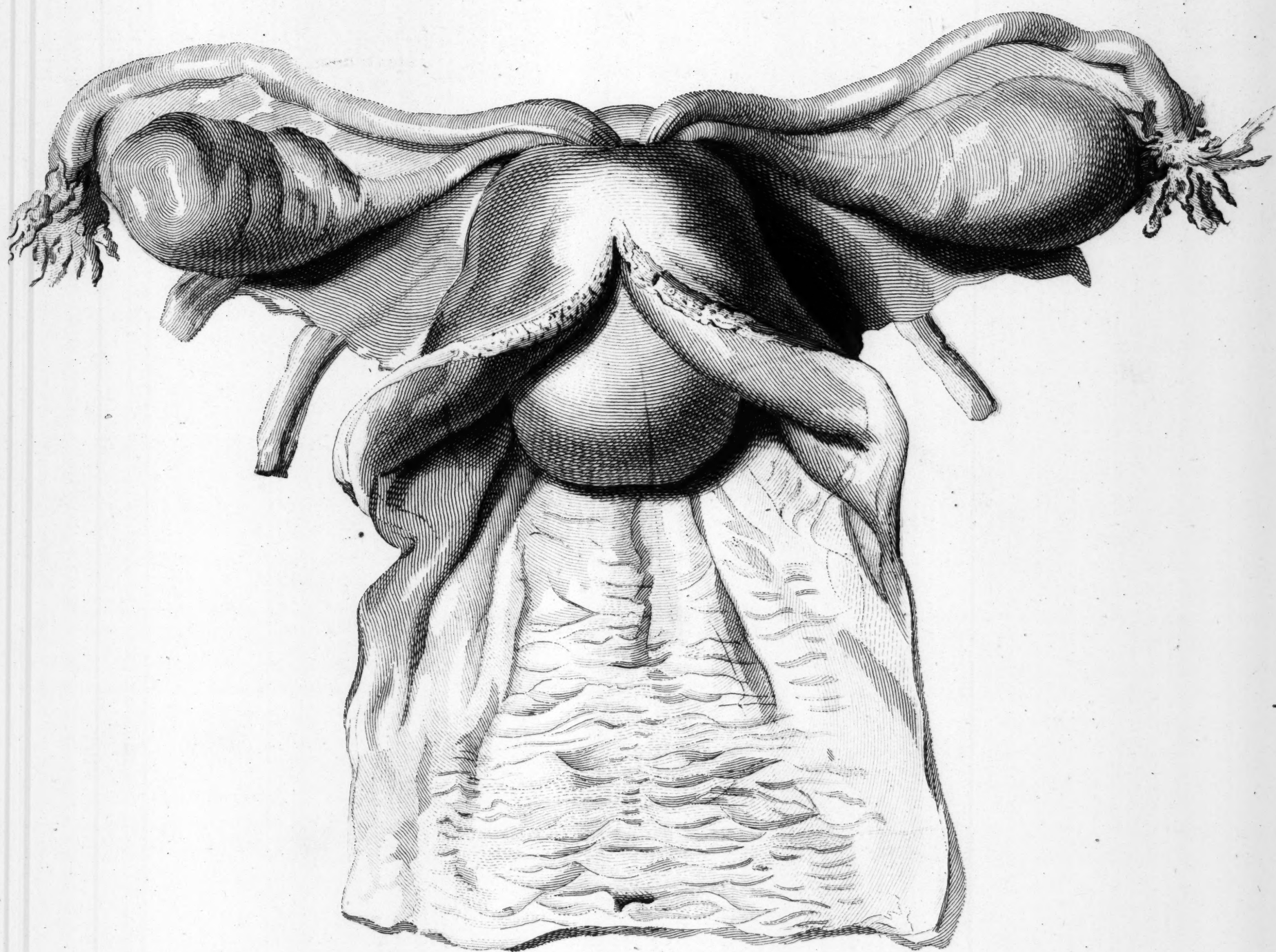
## La Déchirure de la Matrice.

LA personne, de qui ce dessein fut tiré, mourut subitement au moment d'accouchement. Je l'ai vûe très peu de tems avant sa mort; et, comme on n'avoit point essayé d'extraire l'Enfant, toutes les parties sont précisément représentées dans la même situation, dans laquelle elles ont parû en faisant une incision croisée au travers des tegumens de l'Abdomen. C'étoit une preuve de la déchirure de la Matrice à la partie postérieure, vis-à-vis de la projection du Sacrum. Le corps, et les membres de l'Enfant s'étoient échappés dans la cavité de l'Abdomen; la tête se trouvant enfermée dans le Pelvis. Comme le fond, et la partie antérieure de la Matrice n'étoient ni dans un état malade, ni blessés, ils avoient, comme il faut, repris leur figure ordinaire: La position casuelle de la trompe fallopienne, et de son morceau frangé, c'est à dire ses *Fimbriæ*, sur le corps du l'Enfant explique la situation relative des parties, et donne un très bel effet à la planche.

Plusieurs auteurs ont donné des histoires de la déchirure de la Matrice, et particulièrement *Bonetus* dans son *Sepulchretum*, et *La Motte*. Mais je crois bien que personne n'a encore publié, sur ce sujet, une représentation juste. Il manque encore une planche pour figurer la déchirure de la partie antérieure de la Matrice; ce qui arrive quelquefois, mais moins souvent qu'à la partie postérieure. Pour rendre parfait ce sujet, il faut que l'état actuel de la Matrice, à la partie déchirée soit tracé; et, peut-être, quelques unes des variétés. Mais les exemples de cette maladie sont si rares, qu'il faudra que tout ce qui reste à faire, soit fini par les attentions de plusieurs Anatomistes et d'autres Accoucheurs.

Pour la description des signes, et du traitement que puisse demander la déchirure de la Matrice, il vaudra bien la peine lire un discours sur ce sujet, publié par mon ami estimé le





*F. Burnie ad vivum delineavit.*

Publsh'd as the Act directs, by D<sup>r</sup>. Tho<sup>s</sup>. Denman, 23. Feb<sup>y</sup> 1788.

*W. Skelton sculp.*



### Inversion of the *Uterus*.

OF the inversion of the *uterus* many accounts have been published, particularly by *Ruyfch*, who has also given a drawing of it soon after the accident; but this is not sufficiently exact to convey much information. There is likewise in that very correct and splendid work of the late Dr. *William Hunter*, the *Anatomia Uteri Humani Gravidi*, a plate, which represents the state of the surface of the *uterus* immediately after its inversion.

I was called to the patient, from whom this drawing was afterwards taken, soon after her delivery, when she was supposed to be in extreme danger from an hemorrhage. I very imprudently neglected to take an examination *per vaginam*, so that the inversion was not discovered till near twenty-four hours after the accident; when the repeated attempts I made, with all the address of which I was master, and all the force I dared to exert, failed to reduce it. The *uterus* continued inverted, but the patient survived, and lived several months; though she was, for the remainder of her life, subject to profuse uterine discharges, by which she was at length exhausted. I have however seen several instances of women, with the *uterus* inverted, living for many years in tolerable health. In this plate the posterior part of the *vagina* is laid open: The *uterus* seems to be diminished in its size, and the *ovaria* to be somewhat enlarged. The altered position and direction of the *Fallopian* tubes is well represented, and by these all the other parts are explained. The inverted surfaces of the *uterus*, though lying in contact, had not adhered.

For permission to take a drawing from this subject I was obliged to Mr. *Hall*, Teacher of Anatomy, in whose collection the preparation is preserved.

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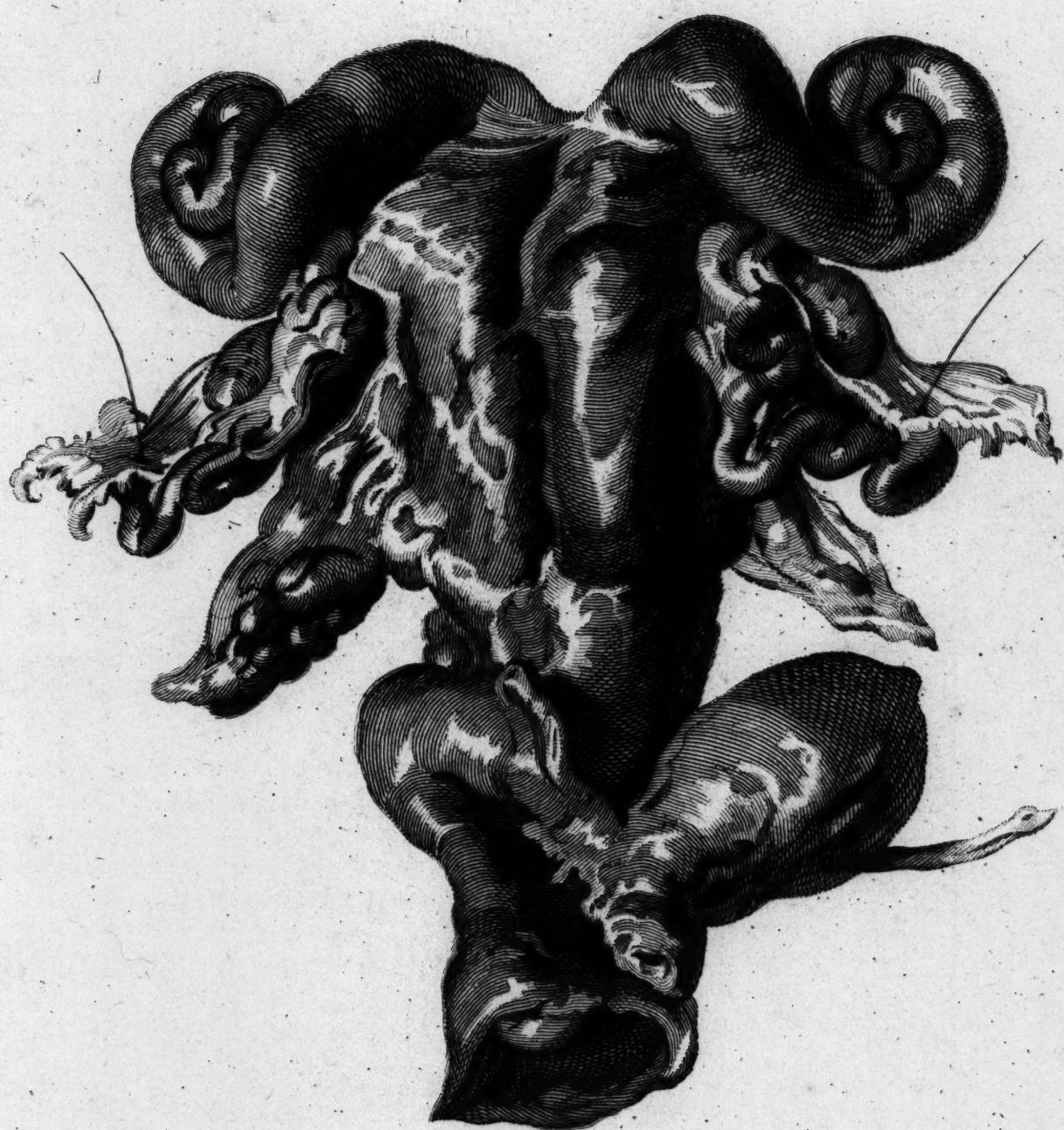
### La Perversion, ou l'Inversion de la Matrice.

PLUSIEURS Auteurs ont donné des descriptions de l'inversion de la matrice, et, parmi les auteurs, *Ruyfch*; qui en a donné un dessein, qui représente son apparence immédiatement après l'événement; mais il n'est pas assez juste pour bien nous instruire. Dans l'ouvrage exact et splendide de M. *W. Hunter* il y a aussi une planche, qui représente l'état de la surface de la Matrice après son inversion.

Je me suis rendu chez la personne, de qui ensuite fut tiré ce dessein, peu de tems après son accouchement; on crut qu'Elle étoit dangereusement malade à cause de la perte du sang. Je négligois bien imprudemment d'examiner le vagin, de sorte qu'il y avoit vingt-quatre heures avant que l'inversion fût découverte: Je me servis de toute l'art dont j'étois capable, et de toute la force que j'osois employer; tout étoit inutile; je ne pouvois pas réduire la matrice; Elle continua dans la situation inversée: Cependant la malade survécut quelques mois, assujettie pourtant, le reste de sa vie, à des décharges excessives de la matrice; lesquelles étoient la cause de sa mort. Néanmoins j'ai vu plusieurs femmes, dont la matrice étoit inversée, qui ont vécu plusieurs Années en assez bonne santé. Dans cette planche la partie postérieure du vagin est divisée; la matrice y semble d'être un peu diminuée, et les ovaires un peu aggrandis. La direction changée des trompes Fallopiennes est bien marquée, et par celles toutes les autres parties sont expliquées.

Je suis obligé à M. *Hall*, anatomiste, dans le cabinet duquel cette préparation est conservée, pour la permission d'en prendre ce dessein.





*J. V. Rymsdyk delin.*

*W. Skelton sculp.*

Publish'd as the Act directs, by D<sup>r</sup> Tho<sup>s</sup> Denman, 23. Feb. 1789.



The *Uterus*, with the Bladder of an Ewe.

THIS very beautiful drawing represents the form of the *Uteri* of the *Pecora*, or sixth class of animals, according to the system of *Linnæus*; in which the *fundus* of the *uterus* is divided into branches or horns, convoluted and terminated in a point.

In a former plate there was given a specimen of one of the cotyledons of a cow, which is an animal of the same class. Occasion will be taken in the course of this work, to give an example of the form of the *uteri* of the different classes of animals, both in the common and impregnated state, and of the manner in which the *uterus* and *ovum* are connected together.

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La *Matrice* avec la Vessie d'une Brèbis.

CE très beau dessein représente la forme des matrices dans les *Pecora*, ou la sixième classe des animaux, selon le système de *Linnæus*; dans lesquels le fond de la matrice est divisé en branches au cornes entortillées et terminées en point. Dans une planche précédente, on a donné une figure d'une de ces cotyledones d'un vache, qui est un animal de la même classe. On saisira l'occasion dans le cours de cet ouvrage de présenter un exemple de la forme des *uteri* dans les autres différentes classes d'animaux, tant dans leur état ordinaire que dans celui de leur grossesse, et de la manière dont la matrice et l'œuf sont attachés l'un à l'autre.





*R. Atkinson Del.*

*T. Medland Sculp.*

London Publish'd Nov. 3. 1790. by D<sup>r</sup> Thomas Denman. —



The *Uterus*, with the *Ovum* contained in it, of a Woman who died about the seventh Week of her Pregnancy.

THIS drawing was taken, under the inspection of the late Dr. *William Hunter* and Dr. *Underwood*, from a woman who died in consequence of an uterine hemorrhage, which came on about the seventh week of her pregnancy, and proved fatal before the *ovum* could be expelled. The *os uteri* was sufficiently opened, and all the parts of the *ovum* loosened from the *uterus*, except a small portion at the *fundus*, the attachment of which remained very firm, and had a scirrhus feel and appearance. The common means had been used to abate the hemorrhage, and to favour the exclusion of the *ovum*, but without effect; for the patient died on the third day from the first symptoms of abortion; the prognostic, founded on the general event of such cases, not giving reason to apprehend danger.

The short lines, which pass from the *uterus* to the *ovum*, shew very distinctly, the manner of their connexion, and the part which was found adhering when the body was opened.

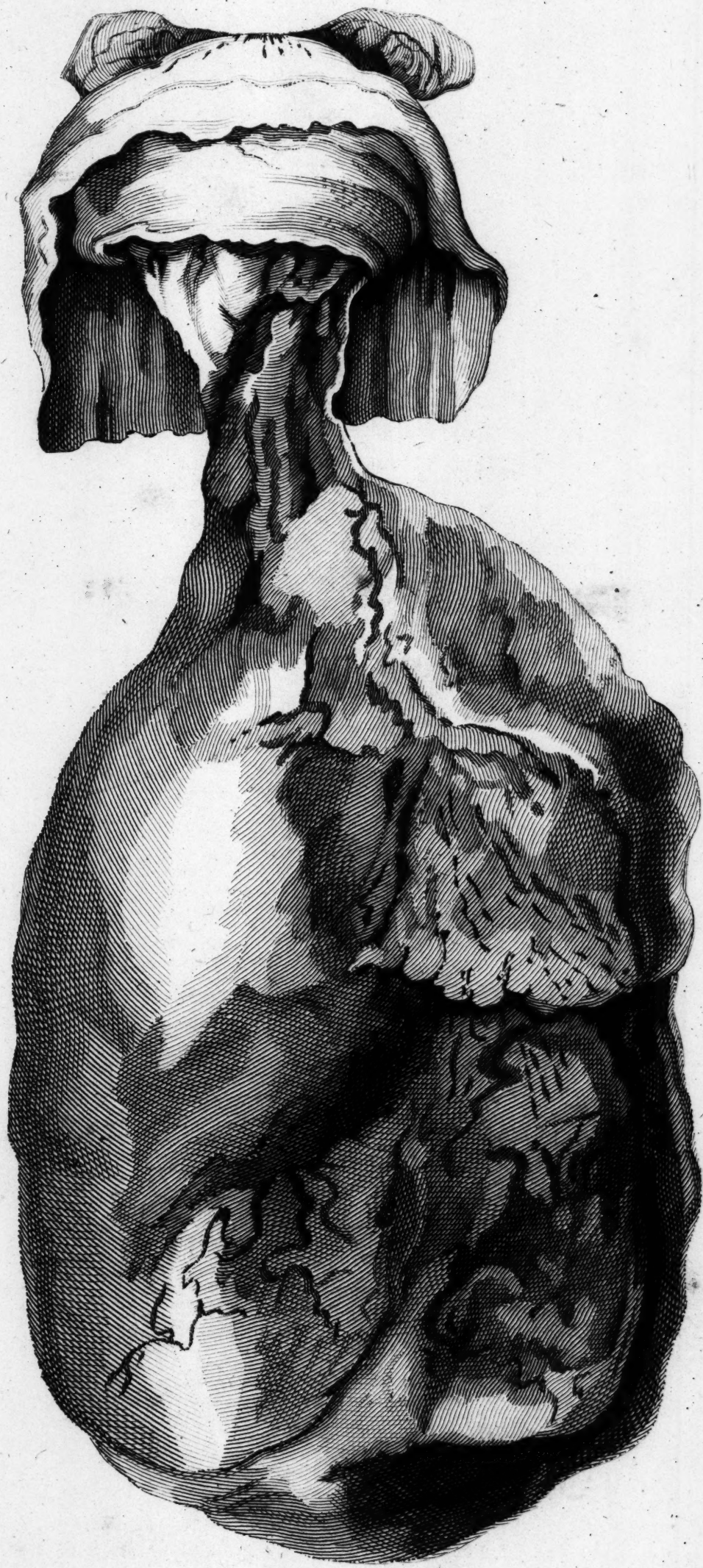
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La *Matrice* d'une Femme qui mourut vers la septieme Semaine de sa Grossesse, avec l'*Oeuf* y contenu.

CE fut sous l'inspection du feu Dr. *Guillaume Hunter* et du Dr. *Underwood*, que cette figure a été prise d'une femme qui mourut en consequence d'une hemorrhagie uterine, qui lui survint vers la septieme semaine de sa grossesse, et qui devint fatale avant que l'œuf pût être expulsé. L'orifice de la matrice étoit suffisamment ouvert, et toutes les parties de l'œuf étoient détachées de la matrice, à l'exception d'une petite portion au fond, laquelle demeuroit très fermement attachée et soit au tact, soit à la vue paroissoit scirrheuse. On avoit eu recours aux moyens ordinaires pour diminuer l'hémorrhagie, et pour faciliter l'exclusion de l'œuf; mais ce fut en vain; car la malade mourut au troisième jour après les premiers symptômes d'avortement, sans que, dans le prognostic que suggère l'événement général en pareils cas, on eut trouvé lieu d'apprehender le danger.

Les courtes lignes qui passent de la matrice à l'œuf, montrent très distinctement la manière de leur connexion et la partie qui se trouva adhérente à l'ouverture du corps.





*G. Porter delineavit,  
sub cura Gul. Hamilton.*

Publiſh'd as the Act directs, by D<sup>r</sup>. Tho<sup>s</sup>. Denman, 9<sup>th</sup> July 1789.

*W. Skelton sculp.*



An Excrescence from the *Fundus* of the *Uterus*, with an Inversion of the *Uterus*.

MY very much esteemed friend Mr. *Hamilton*, professor of anatomy at *Glasgow*, dissected the body from which this drawing was taken. The woman had laboured under the disease about three years; but she had concealed it. The tumour became so large in the *vagina*, as to occasion pains like those of labour, but was at length excluded through the external parts. Mr. *Hamilton* then saw her for the first time, but she was so exhausted, that she died in the course of a few hours.

On the examination of the parts after death, the excrescence was found to spring from the *fundus* of the *uterus*, which was compleatly inverted, and dragged through the *os uteri* into the *vagina*. The excrescence is seen adhering; and the part where the *uterus* terminates and the excrescence begins, may be readily distinguished. The texture of the excrescence was soft and spongy; it measured nine inches in length, twelve in circumference, and weighed one pound and four ounces.

The first symptoms which attend excrescences of the *uterus* are similar to those of a schirrhous or cancer of that part, and they cannot be discriminated without an examination *per vaginam*. It is not therefore surprizing that they should sometimes be mistaken or overlooked.

Excrescences of the *uterus* vary in their origin, size, form, and texture, but they are universally insensible; the *uterus*, on the contrary, is, in all its parts, extremely sensible. Some of these excrescences decay spontaneously, and after a certain time the patients recover without any manual assistance; others require extirpation, which is generally attempted, by passing a ligature round the stem or pedicle, with force sufficient to occasion their decay. But when the ligature is drawn tight for this purpose, great attention should be paid to the feelings of the patient, particularly when the part on which the ligature is fixed, cannot be precisely ascertained; as might have happened in the case now described.

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Une Excrescence du *Fond* de la *Matrice*, avec l'Inversion de la *Matrice*.

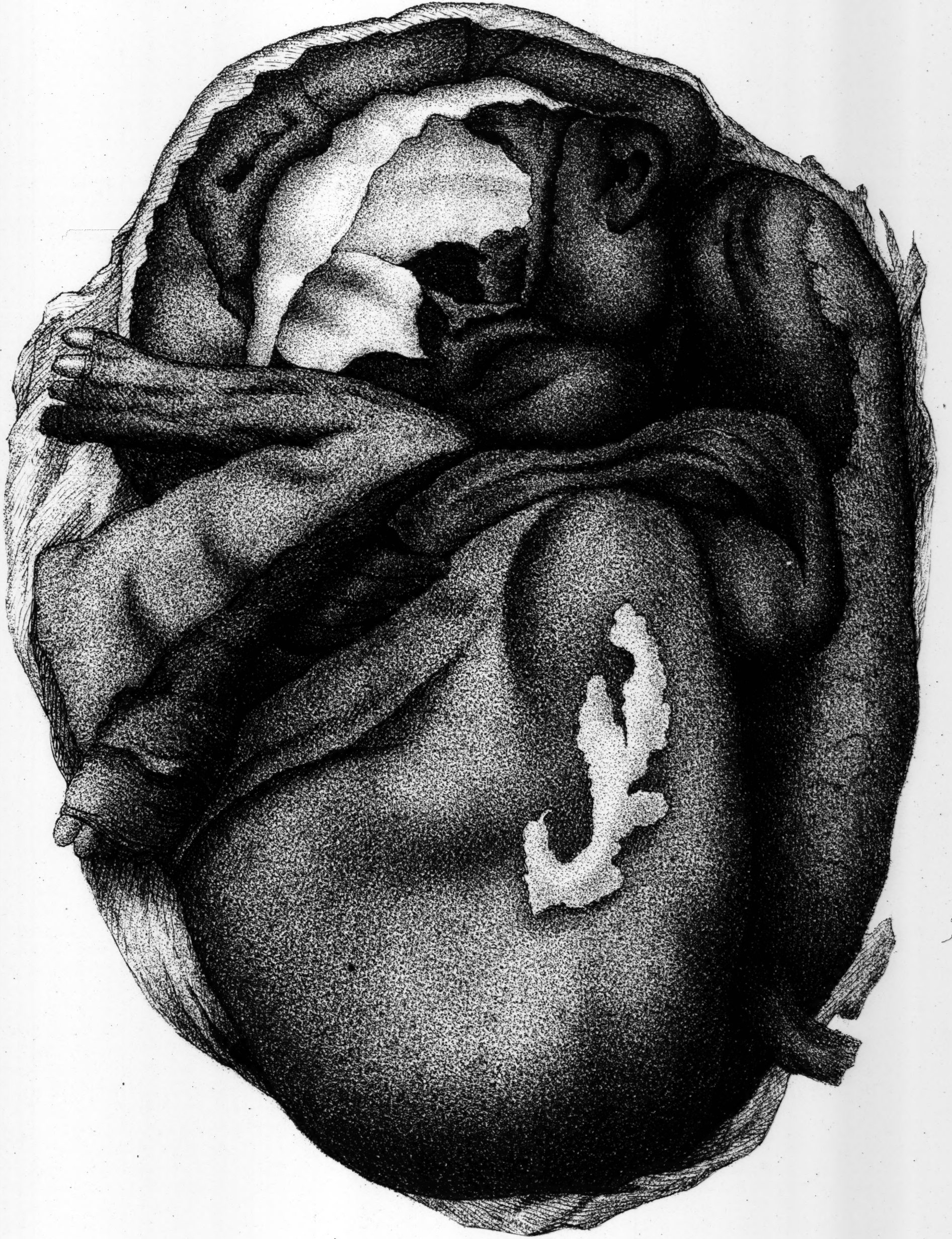
MON très estimable ami, le Sieur *Hamilton*, professeur d'anatomie a *Glasgow*, a disséqué le corps dont est pris ce dessein. La femme avoit eu cette maladie pendant environ trois années; mais elle l'avoit tenue cachée. La tumeur s'étoit elargie dans le vagin au point de causer des douleurs semblables a celles de l'accouchement, mais à la longue, elle s'étoit ouvert un passage à travers les parties externes. Ce fut alors que Mr. *Hamilton* vit cette femme pour la première fois: Mais elle étoit si épuisée que peu d'heures après, elle mourut. En examinant les parties après sa mort, on trouva que l'excrescence prenoit naissance du fond de la matrice, laquelle étoit complètement renversée, et avoit été entraînée dans le vagin à travers l'orifice de la matrice. On voit que l'excrescence est adhérente, et on peut aisément distinguer la partie où se termine la matrice et où commence l'excrescence. Le tissu de cette excrescence étoit mol et spongieux. Elle avoit neuf pouces de longueur, douze pouces de circonférence et pesoit une livre quatre onces.

Les premiers symptômes qui accompagnent les excrescences de la matrice ressemblent à ceux qu'on remarque dans cette partie, lorsqu'il y a un schirre ou un cancer, et on ne peut en appercevoir la différence sans en faire l'examen par le vagin. Il n'est donc pas surprenant que quelquefois on s'y trompe, ou que cette différence échappe aux yeux.

Les excrescences de la matrice varient dans leur origine, leur grosseur, forme et tissu; mais universellement elles sont dénuées de sentiment, au lieu que la matrice elle même est extrêmement sensible dans toutes ses parties.

Quelques unes de ces excrescences se déperissent d'elles même, et après quelque tems, les malades se ratablissent sans le secours d'opération. Il y en a d'autres qu'il faut extirper, et c'est ce qu'on tâche ordinairement de faire en entourant le pédicule d'une ligature suffisamment forte, pour en causer le déperissement. Mais lorsqu'à cette fin, on serre la ligature, il faut avoir bien égard à la sensibilité de la malade, surtout lorsqu'on n'est pas précisément certain quelle est la partie sur laquelle se fixe la ligature, comme il auroit pu arriver dans le cas qu'on vient de décrire.





London, Publish'd Jan<sup>y</sup> 29<sup>th</sup> 1790. by D<sup>r</sup>. Tho<sup>s</sup>. Denman.



An Extra-uterine *Fœtus* contained in its Sack, the anterior Part of which is removed.

OF this case, which was also communicated to me by Professor *Hamilton* of *Glasgow*, the account is imperfect; but the fact is indisputable, and the drawing a faithful representation of the position and state of the child when the sack was opened, after the death of the patient.

The woman after several miscarriages became pregnant; the motion of the child was distinctly felt; at the end of nine months she had the symptoms of labour, which after a certain time ceased; there was no evacuation of any kind from the *uterus*, but the *abdomen* lessened, though it did not return to its natural size. Her husband dying, she married again; but though she menstruated regularly, she was never afterwards with child. From the conception of the extra-uterine *Fœtus*, she lived thirty-two years in good health, nor was her death occasioned, directly or indirectly, by that circumstance.

The *Fœtus*, slightly covered with calcareous matter, was included in a globular sack, which adhered by a small part of its surface to the left side of the *abdomen*. Whether the sack was formed by the gradual distention of an original part, or was a new substance; whether the extra-uterine state happened from a defect of the *ovarium*, or from a rupture of the Fallopian tube, or of the *uterus*; or at what period of pregnancy the circumstance occurred, I am not able to give any account.

The plate shews the position of the child, and the degree of change it had undergone, so plainly as to require no farther explanation. The child weighed seven pounds. There were no remains of the *placenta*, and only about six inches of the *funis*.

In a very old painting in my possession there is a view of the rupture of the Fallopian tube about the sixth month of pregnancy. This, with many observations found in different authors, might be considered as a presumptive proof of a general opinion, that the *Fœtus* commonly escaped from that part into the cavity of the *abdomen*.

The late Dr. *William Hunter*, I believe, first observed, though the *Fœtus* be extra-uterine, that the *uterus* undergoes those peculiar changes which render it fit for the reception of the *ovum*.

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Un *Fœtus* Extra-uterin, contenu dans son Sac, dont la Partie anterieure est enlevée.

LE détail de ce cas, qui m'a aussi été communiqué par le Sieur *Hamilton*, Professeur de *Glasgow*, est imparfait; mais le fait est incontestable, et cette planche offre une représentation fidele de la position et de l'état de l'enfant, à l'ouverture du sac, après le décès de la malade.

La femme après plusieurs fausses couches, se trouva enceinte; le mouvement de l'enfant se fit distinctement sentir. Au bout de neuf mois, elle éprouva les symptomes de travail, lesquels, après un certain tems, cessèrent. Il n'y eut aucune sorte d'écoulement de l'*uterus*, mais l'*abdomen* se retreffit, sans pourtant reprendre sa taille naturelle. Son mari étant mort, elle se remaria; mais, quoiqu'elle eut ses regles exactement, elle ne se retrouva plus désormais enciente. A dater de la conception du *Fœtus* extra-uterin, elle vécut trente-deux ans, en bonne santé, et cette circonstance ne fut ni directement ni indirectement l'occasion de sa mort.

Le *Fœtus* legerement couvert d'une matiere calcaire, étoit envelopé d'un sac de forme globulaire, dont une petite partie de la surface étoit adherante au coté gauche de l'*abdomen*. Le sac fut-il formé par la distention graduelle d'une partie originelle, ou étoit-ce une substance nouvelle; l'état extra-uterin provenoit-il d'un défaut de l'*ovaire*, ou d'une rupture de trompe de *Fallope*, ou de la matrice; et à quel période de la grossesse, survint cette circonstance; c'est ce dont je ne puis nullement rendre conte.

La planche montre la position de l'enfant, et le degré de changement qu'il avoit subi, si distinctement, qu'il n'est pas besoin d'explication ulterieure. L'enfant pesoit sept livres. Il ne restoit rien du *placenta*, et du cordon seulement six pouces environ.

J'ai chez moi un très vieux morceau de peinture, où l'on voit représentée une rupture de la trompe de *Fallope*, vers le sixième mois de la grossesse. Ceci, joint a plusieurs observations qu'on trouve dans differents auteurs, peut être regardé comme une preuve présomptive en faveur de l'opinion generale, que communement l'échappement du *fœtus* se fait de cette partie dans la cavité de l'*abdomen*.

Le feu Docteur *Guillaume Hunter*, à été, je crois, le premier à remarquer, que, quoique le *Fœtus* soit extra-uterin, la matrice subit des changements particuliers, qui la rendent propre à la reception de l'*ovum*.